

CLAIMS

1. Pressure balancer to be associated or integrated with a mixer valve featuring two separate inlets for hot and cold water and a mixed water outlet towards the user, comprising

a balancer body (11) having a base wall (23) and an upper wall (25) and defining a chamber (12) with closed ends,

a piston (13) housed and floating in said chamber, wherein:

said chamber (12) has a middle section (16) between two side sections (17, 18), cylindrical and aligned along a same axis, the middle section having a larger diameter than the side sections, which are identical with each other,

said piston (13) has an intermediate flange (19) joined at opposite ends to two side flanges (20, 21), the intermediate flange (19) having an external diameter compatible with that of said middle section (16) of said chamber (12) and featuring a peripheral seal (19') on the inner surface of said middle section, and the side flanges (20, 21) each having a diameter corresponding to that of the side sections (17, 18) of said chamber (12) and therefore smaller than the diameter of said intermediate flange (19), and

in the base wall (23) of the balancer body (11) two openings (26, 27) are provided for the inflow of hot water and cold water respectively in said side sections (17, 18) of said chamber (12), and in the upper wall (25) of said balancer body, two openings (28, 29) are obtained on opposite sides of the intermediate flange (19) of the piston for the outflow of the hot and cold water from the middle section (16) of said chamber towards the hot and cold water inlets (30, 31) of said mixer valve (32),

the intermediate flange of the piston moves in the middle section of said chamber in the space between the hot and cold water outflow openings, while the side flanges of the piston move in the respective side sections of said chamber to open/close to a variable extent the inlet openings in response to the changes in pressure of the hot and cold water flows into the balancer.

2. Pressure balancer according to claim 1, wherein the intermediate flange has a diameter greater than the side flanges of said piston and each of said side

flanges has a transversal hole for enabling communication of fluids between its opposite sides.

3. Pressure balancer according to claims 1 and 2, wherein said chamber (12) is closed at one end by an integral wall and at the opposite end by a plug, one of said side sections of said chamber being defined by said plug.

4. Pressure balancer according to claim 1, wherein at the base wall of the balancer body seals are fitted around the hot and cold water inlet openings.

5. Pressure balancer according to claim 4, wherein the base wall of the balancer body is provided with positioning feet.